

CS	Macadamia integrifolia.
FH	Key location/Qualifiers
FT	peptide 1..28
FT	/note= "signal peptide"
FT	29..666 /note= "mature Protein"
PN	W09827805-A1.
PD	02-JUL-1998.
PR	22-DEC-1997; AU0874.
PA	20-DEC-1996; AU-004275.
(RETR-)	COOP RES CENT TROPICAL PLANT PATHOLOGY.
PI	Bower NI, Goultier KC, Green JL, Manners JM, Marcus JP;
DR	WPI: 98-37279/32.
DR	N-PSDB; V42316.
PT	Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
PS	Claim 1; Page 43-45; 96pp; English.
CC	The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
SQ	Sequence 625 AA;
RESULT	3
ID	W62829 standard; Protein: 666 AA.
AC	W62829;
DT	27-OCT-1998 (first entry)
DE	Macadamia integrifolia antimicrobial protein.
KW	antimicrobial protein; infestation; control.
OS	Macadamia integrifolia.
FR	Key Location/Qualifiers
FT	peptide 1..28
FT	/note= "signal peptide"
FT	29..666 /note= "mature protein"
PN	W09827805-A1.
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PI	Bower NI, Goultier KC, Green JL, Manners JM, Marcus JP;
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PS	Claim 1; Page 43-45; 96pp; English.
CC	The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
SQ	Sequence 525 AA;
RESULT	4
ID	W62831 standard; Protein: 525 AA.
AC	W62831;
DT	27-OCT-1998 (first entry)
DE	Theobroma cacao antimicrobial protein.
KW	antimicrobial protein; infestation; control.
OS	Theobroma cacao.
DR	W09827805-A1.
PR	22-DEC-1997; AU0874.
PA	20-DEC-1996; AU-004275.
(RETR-)	COOP RES CENT TROPICAL PLANT PATHOLOGY.
PI	Bower NI, Goultier KC, Green JL, Manners JM, Marcus JP;
DR	WPI: 98-37279/32.
PT	Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
PS	Claim 1; Page 47-49; 96pp; English.
CC	The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
SQ	Sequence 525 AA;
RESULT	5
ID	R20181 standard; Protein: 566 AA.
AC	R20181;
DT	16-APR-1992 (first entry)
DE	Sequence encoded by 67 kD T. cacao protein cDNA.
KW	Cocos: flavour; vicilin; seed storage protein.
OS	Theobroma cacao.
PN	WO9119801-A.
PD	26-DEC-1991.
PR	07-JUN-1991; GB00914.
PR	11-JUN-1990; GB-0101016.
PA	(MRSC) MARS UK LTD.
PI	Spencer ME, Hodge R, Deakin EA, Ashton S;
DR	WPI: 92-024418-03.
PR	N-PSDB; Q20181.
PT	Recombinant cocoa proteins - are responsible for flavour in cocoa beans and produced in large quantities using yeast and bacterial expression vectors
PS	Claim 4; Fig 2; 59pp; English.
CC	The inventors claim a 67 kD and 31 kD T. cacao protein, and fragments, and encoding DNAs. The 47 kD and 31 kD proteins are derived from the 67 kD precursor. T. cacao protein cDNA was detected in a cDNA library prepared from immature cocoa beans RNA using a probe based on the AA sequence of a CNBR peptide common to the 47 kD and 31 kD polypeptides. Homology searches revealed close homologies between the 67 kD polypeptide and the vicilins, which are seed storage proteins.
SQ	Sequence 566 AA;
RESULT	6
ID	NRQDPOQQYFQCQCRCRERTEPRIMOTCQCRCERRYEKKRKQKRYEQQREDEEKY 176
AC	NRQDPOQQYFQCQCRCRERTEPRIMOTCQCRCERRYEKKRKQKRYEQQREDEEKY 176
PS	Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
CC	Claim 1; Page 39-41; 96pp; English.
CC	The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
CC	Sequence 666 AA;
Query Match	95.9%; Score 517; DB 1; Length 666;
Best Local Similarity	95.7%; Pred. No. 1. 65e-34;
Matches	66; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Query Match	40.3%; Score 217; DB 1; Length 566;
Best Local Similarity	47.0%; Pred. No. 2. 27e-09;
Matches	31; Conservative 15; Mismatches 16; Indels 4; Gaps 3;
Db	35 ERDPROQYFQCQCRCRERTEPRIMOTCQCRCERRYEKKRKQKRYEQQREDEEKY 176
Db	35 ERDPROQYFQCQCRCRERTEPRIMOTCQCRCERRYEKKRKQKRYEQQREDEEKY 176
OY	177 BERMKEEDN 185

PI	Piower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
DR	WPI: 98-377297/32.
PT	Novel antimicrobial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
PS	Claim 1; Page 58-60; 96pp; English.
CC	The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
CC	Sequence 593 AA;
SQ	Query Match 22.6%; Score 122; DB 1; Length 593; Best Local Similarity 36.8%; Pred. No. 6.38e-02; Matches 21; Conservative 12; Mismatches 20; Indels 4; Gaps 4; Qy 132 HQQR-EETPRHMOT-CQQRCCRVEKEKIQOKRYEQREDEEYK-PRMKEEDN 185
RESULT	10
ID	W62836 standard; Protein; 33 AA.
AC	W62836;
DT	27-OCT-1998 (first entry)
DE	Zea mays antimicrobial protein.
KW	antimicrobial protein; infestation; control.
OS	zea mays.
PN	W09827805-A1.
PD	02-JUL-1998.
PF	22-DEC-1997; AU0874.
PR	20-DEC-1995; UU-004275.
PA	(RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.
PI	Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
DR	WPI: 98-377297/32.
PT	Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
PS	Disclosure: Page 60; 96pp; English.
CC	The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
CC	Sequence 33 AA;
SQ	Query Match 21.0%; Score 113; DB 1; Length 33; Best Local Similarity 44.4%; Pred. No. 2.98e-01; Matches 12; Conservative 7; Mismatches 7; Indels 1; Gaps 1;
RESULT	11
ID	W90342 standard; protein; 409 AA.
AC	W90342;
DT	24-MAY-1999 (first entry)
DE	G. max truncated SBP2 protein.
KW	SBP1; sucrose binding protein; SBP2; sucrose uptake; transgenic plant; Glycine max.
OS	sucrose binding protein; soybean.
PN	WO9851086-A1.
PD	26-NOV-1998.
PF	21-MAY-1998; UU0465.
PR	22-MAY-1997; US-04766.
PT	(UNIW) UNIV WASHINGTON STATE RES FOUND.
PS	Chao WS, Grimes HD;
PI	WPI: 99-070155-06.
CC	New modified plant sucrose binding proteins - used to develop transgenic plants which can have enhanced or decreased sucrose uptake activity in developing seeds
CC	This sequence represents a novel sucrose binding protein, SBP2 isolated from Glycine max. This protein is used in a method resulting in the production of a modified plant sucrose binding protein (SBP) which has a modified amino acid sequence compared to a corresponding wild-type SBP.
CC	Claim 7; Page 39-40; 58pp; English.

and where expression of the modified SBP in a yeast assay system confers enhanced sucrose uptake compared to the corresponding wild-type SBP. The products of the invention can be used for producing transgenic plants which have modified sucrose uptake activity, particularly in developing seeds. Enhanced sucrose uptake activity in developing seeds may be desirable where it is an advantage to increase the carbohydrate content of the seed (e.g. where the seed is the primary plant material harvested, such as soybean). In contrast, decreased sucrose uptake activity in seeds might be desirable where the vegetative material of the plant is harvested. The SBP regulatory regions confer specific or enhanced expression in developing seeds and so may be used to express any transgene in developing seeds.

